AN ENQUIRY

INTO THE

MEDICAL PROPERTIES

OF

IODINE,

MORE PARTICULARLY IN DROPSY;

ALSO

AN ACCOUNT

OF THE

UTILITY OF LOCAL-BLOODLETTING,

IN

HYDROTHORAX AND BRONCHITIS.

PARTLY TRANSLATED FROM THE LATIN OF

T. L. C. SCHROEDER VAN DER KOLK,

MED. ET ART. OBST. DOCT. MEDICO IN NOSOCOMIO AMSTELODAMENSI SUBURBANO.

BY

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"Refunditur alga."—VIRGIL.

"Vitiosus sanguis utiliter effunditur."—CELSUS.

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TO

DR. CHAMBERS, DR. SEYMOUR, DR. HEWETT,

AND DR. J. A. WILSON,

PHYSICIANS OF ST. GEORGE'S HOSPITAL,

THIS TREATISE,

WITH PERMISSION, IS RESPECTFULLY INSCRIBED

BY

THE AUTHOR.

13, *Old Burlington Street.*

INTRODUCTION.

In reading over a Latin treatise[1] on pulmonary diseases, I happened to meet with some recorded cases of the diuretic influence of Iodine in dropsy. This power has been observed by many medical practitioners. I shall feel greatly indebted to any gentleman of the profession, who has made, or will make, a trial of it in ascites, to send me a history of the case, for the improvement of a future edition.

Iodine was first introduced in the treatment of bronchocele[2]. Dr. Manson, in his Medical Researches, on the effects of Iodine, has given several instances of its utility in bronchocele, paralysis, chorea, scrophula, fistula lachrymalis, deafness,

[1] Observationes Anatomico-Pathologici et Practici Argumenti, auctore T. L. Schroeder van der Kolk. Fasciculus 1. Amstelodami. Apud C. G. Sulpke. 1826.

[2] Dr. Gairdner's Essay on the Effects of Iodine on the Human Constitution, with Practical Observations on its Use in the Cure of Bronchocele, Scrofula, and the Tuberculous Diseases of the Chest and Abdomen, p. 35.

dysphagia, white swelling, and distortions of the spine.

Every medicine ought to be used cautiously, but none with more caution than Iodine, in consequence of the insidious advances that it makes upon the constitution. It is frequently from rash employment of medicine, that many valuable remedies fall into undeserved discredit.

Dr. Gairdner states,—"When it had been used for some time in this manner, its pernicious effects began to shew themselves; several persons paid for their temerity with their lives, and many were irreparably injured in health." At length its name was associated with the idea of a most intractable and virulent poison;—"Neither patient nor physician dared venture on its employment." The most remarkable symptom of its irregular action is the rapid emaciation which supervenes. Among other distressing symptoms have been observed,—"Violent and incessant vomiting, excruciating pain of stomach and bowels, strong spasms of the back and legs: the legs sometimes swell in the first instance, and afterwards become rapidly thin and meagre." Sometimes unpleasant nervous symptoms have been produced. M. Orfila has noticed the subjoined effects of Iodine on animals;—"He

gave it to different animals in the quantity of a drachm and two drachms. They were generally seized with violent and frequent vomiting. When the contents of the stomach were not soon thrown up, or were altogether retained, the poison was much more speedily fatal. The animals do not seem to have been affected with any other very remarkable symptom. It is stated that they were very much dejected, and manifested suffering, though they did not howl, were not paralysed or convulsed, and were not affected with any of the more violent symptoms, by which poisons commonly show their action on the living body. The stomach was generally found corroded by small ulcers of a linear form, which had eaten through the mucous coat. Those parts, also, which were most exposed to the action of the poison, were thinner and more transparent than the others, and were easily torn asunder. The mucous membrane, in the neighbourhood of the pylorus, was found much inflamed, swelled, and covered with a crust of coagulable lymph[1]."

[1] Vide Dr. Gairdner's book, p. 18.

AN ENQUIRY,

&c.

According to writers on Chemistry, Iodine derives its name from the Greek word Ἰώδης violaceus, in consequence of the beautiful violet colour which it exhibits in its gaseous state.

It was accidentally discovered, in 1812, by M. Courtois, a manufacturer of salt-petre, at Paris. In procuring carbonate of soda from the ashes of sea-weeds[1], he found the metallic vessels greatly corroded by the residual liquor; and, on further investigation, discovered this new substance. In 1813, it was illustrated by Clement and Desormes; its real nature was soon after determined by Gay, Lussac, and Sir Humphrey Davy, who proved that it is a simple non-metallic substance, exceedingly analogous to chlorine. It has been found in various sea-weeds, and it is from the [2] kelp that iodine is obtained in quantities.

[1] Formerly considered useless:

——— et algâ litus *inutili*
Demissa tempestas ab Euro
Sternet. Hor. Carm. Lib. III. 17.
Vilior algâ est. Hor. Sat Lib. II. 5.

[2] Incinerated sea-weed.

Operation. — Stimulant, absorbent, emmenagogue.

Use.—In bronchocele and other glandular swellings, not of schirrous nature: to bring on menstruation in young females, in whom it has not occurred; to assist the cicatrization of venereal ulcers. Cons. Pharm. By A. T. Thomson, M. D. F.L.S.

The following are the formulæ recommended by Brera[1]:—1. Tincture of iodine, made by dissolving 48 grains of pure iodine in an ounce of alcohol. The dose for adults is from five to twenty drops, three times a day. The *tincture* is subject to decomposition, and should therefore be used fresh. Dr. Manson's tincture contains one drachm of iodine in ℥ij ss. of rectified spirit. Of this he commonly prescribes 30 minims thrice a day. Mr. Buchanan puts ʒi. of iodine to ℥ iij. of rectified spirit, and prefers the external to the internal use of the medicine as more efficacious and less likely to create nausea and other unpleasant symptoms. He has often observed, that when desquamation of the cuticle, and great itching followed the external application of the tincture, the parts received more benefit than when the cuticle retained its natural appearance (On Diseased Joints, p. 86). 2. *Pills of iodine,* made by forming one grain of iodine into two pills, with elder-rob and liquorice-root; one to be taken every morning and evening. 3. *Iodine ointment,* made by mixing a drachm of pure iodine with an

[1] Cooper's Surg. Dict. art. Iodine.

ounce of lard, or half a drachm of hydriodate of potass, with an ounce and a half of lard; of the former about a scruple, of the latter a bit, about as large as a filbert, may be rubbed on the part, to which it is intended to be applied. Dr. Manson's ointment has ʒss. of the hydriodate to an ounce of lard. 4. *Solution of hydriodate* of potass, formed by dissolving 36 grains of the hydriodate in an ounce of distilled water: it is given in the same dose as the tincture. 5. *Solution of the iodureted hydriodate of potass,* made by dissolving 36 grains of the hydriodate and 10 grains of pure iodine in 10 drachms of water. The dose, in the beginning of its use, should not be more than five or six drops three times a day. From Dr. Kelly's statement, in the Revue Med. for June, 1823, it appears, that the ointment is made stronger in France than that mentioned by Brera, two drachms of the hydriodate being mixed with an ounce of fat.

In administering iodine, care must be taken not to combine it with substances calculated to decompose it, and only to let the patient take it when the stomach is empty. The liquid preparations are generally given by Dr. Coindet in syrup and water. When ill effects arise from its too violent operation, such as pains in the stomach, chest, bowels, defective vision, loss of sleep, palpitations, tremors, convulsions, &c. or even inconveniences of a less dangerous kind, the medicine should be immediately discontinued. A strict regimen, copious mucilaginous drinks, the tepid bath, and sometimes

bleeding, are necessary. It is hardly necessary to observe, that the use of iodine requires a great deal of caution, as several cases have happened in which the patients were poisoned with it.

The following extract appeared in the Quarterly Journal of Science, New Series, No. xii. page 432. 1830.

Application of Iodine to Scrofula.—M. le Dr. Lugot has treated 109 scrofulous cases at the Hospital St. Louis, within seventeen months, with iodine alone. At the end of the last year 39 still remained under superintendence; 30 had left the Hospital very much improved; 36 had gone away completely cured; and in four cases only did the remedy seem quite inefficacious, &c. &c. *Revue Ency.* xliii. 767.

The absorbent system is greatly under the influence of iodine, which has a wonderful power in destroying many strumous disorders.

It has been employed with advantage in white swellings. Mr. Cooper observes, in his edition of Dr. Goode's Study of Medicine:—" The most encouraging accounts of the effects of iodine in the cure of white swellings, hitherto published, are those of Mr. Buchanan, of Hull, who applies the tincture with a camel-hair brush to the integuments, by which it appears to be rapidly absorbed." With regard to its employment in bronchocele, no other medicine can be compared with it. Coster [1] affirms, that by the use of the Ung. Hyd.

[1] Goode's Study of Med. p. 321. V. v.

Potass., of nearly a hundred individuals, more than two-thirds were completely cured under his hands.

Dr. Elliotson, in a private communication with Mr. Houlton, remarks [1]: "that few have, perhaps, used iodine more extensively than he has. He has cured many cases of bronchocele with it, some of large size, and has never yet failed; but he has not healed any that were very hard: and he has sometimes persevered with the remedy for a year and a half before the disease has yielded. He has also been very successful with it in chronic rheumatic swellings of the wrists and joints of the fingers, &c. &c. He has sometimes seen other indolent tumours reduced or removed by it. A very bad case of what appeared diseased pylorus yielded to a combination of it with prussic acid, in St. Thomas's Hospital. In the Medico-Chirurgical Transactions, vol. cii. p. 544, Dr. Elliotson states, "of the powers of iodine in bronchocele, we have abundant testimony; I have seen sufficient to satisfy myself: and they would seem equally great in certain other structural diseases." Its utility in tubercles of the lungs is doubtful. Dr. Gairdner thinks it may be found serviceable in the incipient stages of the disease, but in the more advanced periods he questions whether it will prove even innocent.

The following is a translation of cases from the latter part of a Latin Treatise on Hydrothorax, in which the *diuretic* influence of iodine is detected.

[2] Appendix to Magendie's Formulary for the Preparation and Employment of several new Remedies, p. 13.

One remedy I cannot pass over in silence, which I have sometimes observed to excite the urine, namely, the tincture of iodine; although, in my opinion, it should be sedulously avoided in hydrothorax, as it would be too irritating. This medicine has been celebrated by many for exciting the action of the lymphatic vessels, but I *have not found any record of its diuretic power*. Therefore I will briefly state what the tincture of iodine sometimes effects in

ASCITES [1].

A female, æt. 59, was attacked in the commencement of October, 1824, with fever, accompanied by pain in the right hypochondrium and scapula, taste bitter, and bowels irregular; the abdomen began to swell after three weeks, the pain somewhat diminished, and jaundice gradually appeared, her strength was impaired; on the 19th of November she was brought to the Hospital.

I now remarked the following symptoms; colour of the face very yellow, sclerotic coat of the eye yellow, the pain in the hypochondrium and scapula continued, but with less violence, moderate pressure

[1] Dr. Baron on Tuberculous Diseases, (p. 221), has related a case of encysted dropsy of the ovarium, in which its employment was attended with benefit. Dr. Gairdner has also seen it used in a case of the same kind with decided advantage, but he made trial of it in two cases of ascites, and one of amenorrhæa, without benefit.

caused no uneasiness; abdomen greatly swelled; hard, particularly in the hepatic region; pulse frequent, weak, headache, taste bitter, tongue yellow, densely coated, bowels costive.

Dejections were produced by laxatives and clysters, the tongue became cleaner, and the bitterness of taste was corrected, but the hardness of the abdomen remained.

In order that I might cure the tumid liver, I tried the tinct. iod. ad gtt. viij. per diem, which were added to a diuretic mixture that had been employed for some time. After three days the yellowness of the skin began to decrease, the abdomen became softer and smaller, so that, on the 15th of December, the jaundice, hardness, and swelling of the abdomen, were removed; and upon the restoration of strength, by bitters and diet, she left the Hospital on the 15th of January, healed from her complaint.

I have occasionally observed in other cases of dropsy, when the urine could not be excited by any other remedy, a cure effected by iodine, provided there was no inflammation, and the cause of the deficiency of urine was neither from plethora, nor sordes, nor spasm.

For example :—I had in vain administered various diuretic remedies to a young man, æt. twenty-eight, labouring under ascites and anasarca, for nearly two months, diarrhœa indeed occurred, by which much water was evacuated, but at the same time his strength was diminished; having subdued

the diarrhœa, by appropriate remedies, I administered the tinc. iod. with such an effect, that on the following day the urine was excited, and after seven days he left the Hospital, entirely recovered from dropsy.

Ascites often occurs so obstinately in females, that no remedies seem capable of effecting a cure; for instance:—

A female, æt. 28, was brought to the Hospital labouring under ascites and anasarca; she had been afflicted four years, feet swelled, appearance emaciated; she said that she had suffered from fever, before the supervention of dropsy; had ineffectually employed many remedies for a long period; and had been formerly often harassed with pains in the hypochondria; her skin was hard, dry, rough; urine scanty; therefore when I saw her, the action of the skin was altogether depraved. I tried warm baths, although her exhausted state scarcely admitted of their use; at the same time she took diuretic remedies, ex solut. crem. tart. solub. cum oxymelle colch. The baths rendered the skin softer, and less harsh, while its colour and action was beginning to be restored, but she was unable to endure the warm bath long; we must observe that the diuretics did not show any effect before the action of the skin had been restored by the employment of the warm baths; in addition to these, her diet was nourishing, by which her strength was so improved that her healthy colour returned, and she began to walk: the anasarca had entirely

disappeared, but swelling of the abdomen, with hardness of the hypochondria, remained. In time the abdomen greatly increased, and diuretics ceased to act, which I have frequently observed in females; after I had to no purpose tried many remedies, I at length employed the following formula, on the 2nd of August:—

℞.—Tinct. iod. gtt. xx.
Aq. cinnam. ℥ i.
M.—Quotidie ½ pars divisis dosibus sumenda.

12th. Urine much freer at night than on any former occasion.

13th. The urine is greatly excited, and abdomen much less.

20th. Catamenia returned suddenly after a long absence; by chance the iodine was neglected, at night the urine was scanty.

This case was not completely cured, but it sufficiently manifests the diuretic property of the tincture of iodine.

The author, in continuation, gives a caution for the employment of Iodine. "We must exhibit this remedy prudently to aged persons, for I have seen injurious results in one case of a woman who had employed the same formula; for after she had incautiously swallowed, at one dose, Tinc. Iod. gtt. x. singular symptoms arose, she was blind for half an hour, and could not abstain from continued involuntary laughter; these symptoms gradually decreased in about half an hour; the sight was re-

stored, and no evil consequences appeared to remain. On the following night the urine was more free."

"I sometimes observed that the iodine did not promote diuresis, and I am at a loss to account why its power is not equally manifest; it appears, however, that much advantage is to be anticipated from this remedy, in induration of the liver and scrofulous habits."

I have briefly stated several accounts of the qualities of iodine, and if it possesses this influence over dropsy, as mentioned above, time alone will pronounce definitively.

The following are observations on the treatment of hydrothorax, by the same author:—

HYDROTHORAX.

"In this complaint, as in all diseases of the lungs, we must carefully recollect, that with the exception of the heart, there exists no organ in the body which exerts so much power over the circulation of the blood, and at the same time is endued with so much sensibility; hence pulmonary diseases not only soon disturb the circulation, but also spasm, of greater or less degree, accompanies pulmonary diseases; and it frequently happens in hydrothorax, that there is an increase of the oppression of the lungs and congestion of blood. On this account hydrothorax differs so materially from ascites by the severity of symptoms and obstinacy of the disease; therefore, the method of cure differs; for it is rarely cured by diuretics alone, which we often vainly

employ to promote the urine ; but if in the first instance we lessen the congestion in the lungs, there is more liberty for the circulation of the blood, and the spasm subsides. I have observed the urine to flow spontaneously and abundantly upon the convalescence of the patient, and the case in which I first attended to this circumstance will not easily escape my recollection.

A woman, æt. 59, of weak constitution, came to the Hospital, complaining of great oppression of the chest, and palpitation of the heart, which were greatly increased by motion ; she had already suffered for a year and a half with obstinate cough and continual expectoration ; incapability of lying on the back ; and deep inspiration was difficult ; occasionally there was œdema of the feet ; the pulse was irregular, intermittent, the cheeks were gradualled flushed, the inferior eyelids were œdematous ; the medical attendant suspected a vomica in the lungs ; relying upon whose authority, I administered the emuls. amygd. cum ext. hyosc., and I ordered the application of four leeches to the chest on the following day ; on the third day she stated that she had experienced great relief, after the leeches had sucked largely, decubitus was easier on the back, the pulse more regular, the urine, which was scanty before, abundant ; consequently I perceived the error of my diagnosis, and by adding digitalis, I promoted the diuresis so effectually, that the patient in a short time left the Hospital entirely cured from her pectoral complaint. Upon reflec-

tion, I resolved at a future opportunity to examine more accurately, whether leeches might always afford so much alleviation, nor did my expectation fail; for if the chest is oppressed, decubitus on the back difficult, respiration short and labouring, the secretion of urine impeded, leeches not only commonly bring great relief, but also much increase of urine, which even after the employment of remedies was sparingly produced, so that after I had instituted this method, my success in curing this disease was far more propitious, but the complaint very often proved fatal. I can scarcely sufficiently extol the utility of leeches, and even cupping, particularly among young persons, according to the varied constitution of the invalid; sometimes, however, it happens, although after their application, we are unable to excite the secretion of urine by any remedy, then it is secreted sparingly, brownish and thick; but I have usually found an accumulation of sordes in the primæ viæ, or bile, when, if the organs of digestion were restored first by tart. emet. in divided doses, or laxatives, the urine flowed abundantly: sometimes a spasm appears to be an impediment to the secretion of urine; hence I am always accustomed in hydrothorax to conjoin antispasmodic remedies as hyosc. aq. amygd. amara. with diuretics; at other times the irritation of the lungs is so great that only digital. vel ejus tinct. emulsioni adjunct. affords relief. It is universally to be remarked, that diuretic remedies essentially differ from other remedies, because they

do not always answer our expectation and affect the urine. Physicians then often have recourse to other medicines, which in my opinion is erroneous; for we must enquire into the reason why the diuretics do not act, which being withdrawn, they fulfil our anticipations. I confess, however, that the investigation is not always easy; it commonly originates from congestion and orgasm of the vessels, either from spasm or gastric accumulations.

Therefore the antiphlogistic plan is to be always pursued in hydrothorax, as crem. tart. solub., acet. potassæ, nitrum, digitalis, uti et oxymel colch. have been my preference; I commonly remarked, that the employment of strengthening remedies or some bitter, diminished the urine; and post mortem examinations as well as observation of many invalids, have sufficiently convinced me, that dropsy rarely originates from debility, or is to be subdued by strengthening remedies; moreover, the bowels are to be kept open in hydrothorax, and all gastric and bilious accumulation is to be quickly removed, for it retards the secretion of urine; if great debility should be present and urine free, I have sometimes added diuretics to the infus. valer. and even to arnic.; but they ought to be administered with moderation; in a few days the secretion of urine is again diminished, so that the idea of dropsy originating from too great a secretion and orgasm of serous membranes has always guided and assisted me in performing a cure; for we do not observe dropsy to appear in perfect exhaustion and

extreme emaciation, if it did not originate from obstruction and diseased digestion; but on the contrary, after intermittent fevers, by which the spleen and liver are affected, or even after the incautious use of Peruvian bark, which remedy certainly provokes orgasm of the vessels in the organs of digestion, and disposes them to chronic inflammation, dropsy is very often induced; further, the acrid serum already exuded, may stimulate the serous membranes, and too much increase the secretion of the vessels, which irritation we easily augment by irritants: consequently, I have usually abstained from drastic remedies in dropsy; they certainly disperse the humours, and frequently heal the disease; but the organs of digestion are often injured by them, the chylification disturbed, and the strength impaired. In order to illustrate my sentiments, I have selected the following history of the disease out of many.

Case I. A youth, æt. 17, who laboured under ascites and œdema of the scrotum, and exhibited symptoms of hydrothorax, was brought into the Hospital on the 24th of May, 1824. Œdema, particularly of the left foot and face had appeared, without the cause being known; afterwards, the face and one foot began to swell more and more, and at length, the scrotum; there was no pain in the hypochondriac regions, urine scanty, bowels natural, appetite languid, no fever. I prescribed a diuretic mixture ex crem. tart. solub. et oxymel. colch. to which I added powders e digital., with so good an effect, that

the urine was more free; but after six days, gastric symptoms arose, tongue yellow, densely coated, taste bitter, bowels more relaxed, the secretion of urine again greatly diminished, dark; the gastric symptoms disappeared, and the diarrhœa was again restrained, after the use of laxatives, and afterwards of emollient remedies, with the muriat. ammon.; but now there was complaint of frequent palpitation of the heart, pulse irregular, accompanied with a slight cough, decubitus on the back difficult, the inferior eye-lids began to swell, but not greatly; in consequence of an excoriation occurring in the scrotum, a great abundance of serum flowed out, and the abdomen decreased; but when great debility appeared to be present, I tried the infus. florum arnic. cum acet. potassæ et digitali, under the employment of which the abdomen, indeed, diminished more and more, and the secretion of urine was favourable, but not so copious, as generally occurs in dropsical habits; moreover, in the two last days it became again somewhat scanty, but the palpitation of the heart, and anxiety of respiration gradually increased; on this account, suspecting a spasm, I administered antispasmodics, as pulv. Doveri, &c. so successfully, that these symptoms were mitigated, and much urine was produced; at the same time I desisted from the infus. arnic., fearing it would cause too much irritation, and I returned to the first diuretic mixture; but suddenly, without any manifest cause, the symptoms became worse; so that, on the 26th of June, after

he had used this mixture two days, he scarcely made water, the palpitation of the heart was vehement, the respiration was so difficult, that the patient, in tears, importuned me to alleviate his distress; the pulse was very irregular, intermittent: I now applied hirud. iv. to the chest, and prescribed the acet. pot. and tinct. dig.

27th. Improved in every respect; the oppression of the chest, and anxious respiration were removed, pulse regular, during the night he frequently made a great quantity of water; under a continuance of these remedies, he was so restored, that he left the Hospital on the 10th of July, entirely cured from dropsy and pulmonary derangement.

I have purposely selected this history, as it appears in consequence of the approach of the gastric symptoms, the secretion of the urine was retarded, upon the removal of these, the secretion of urine was again increased; moreover, in the course of the disease, symptoms of hydrothorax, and perhaps of dropsy of the pericardium, arose; but as yet, dreading too much debility in dropsy, I had recourse ad arnic., which, after some little time, restrained the secretion of urine, and the pulmonary distress increased; antispasmodics, indeed, afforded momentary relief, but convalescence did not ensue until after the application of the leeches; he then spontaneously and freely made water, and the pulmonary complaints were soon removed.

Case II. The same circumstance is evident in the case of a young woman, æt. 24, who was affected with

a slight cough, in consequence of a neglected catarrh, in March, 1825, to the beginning of May, when a quotidian fever suddenly came on; pain throughout the chest supervened, the cough was increased during the paroxysm of the fever, catamenia obstructed; after eight days the fever subsided spontaneously, but an asthmatic complaint of the chest remained, in consequence of which she could neither move nor go up stairs, urine very scanty, the face, particularly under the inferior eyelids, swelled; decubitus on the back and left side impeded, sleep disturbed by dreams, frequent watchfulness; she continued nearly in this state during the summer; the urine was sometimes so suppressed, that she scarcely once made water in twenty-four, or even thirty-six hours; at length, on the 11th of November, she had a return of ague; although the pain in the chest was not severe, it was fixed more in the right side; after the fever, at first the right foot, and two days afterwards, the left foot, began to swell; the oppression of the chest and asthma were increased, in consequence of which she came to the Hospital on the 22nd of November; I remarked the face swelled, especially under the inferior eyelids, the feet swelled, but scarcely the abdomen; tongue yellow, densely coated, taste bitter, urine scanty, red, decubitus on the back difficult, slight pain in the region of the liver and right side of the thorax; I administered a resolvent mixture of the acet. pot., and tart. emet., and after seven days the gastric symptoms were removed, but

the urine was not secreted more abundantly, and the oppression of the chest daily increased, and the feet began to waste; I therefore had recourse to the diuretic mixture, ex crem. tart. solub. cum oxym. colch. et ext. hyosc.: the fever, in the mean time, continued on alternate days; the headache on some days was severe; but the secretion of urine not being restored by these remedies, on the 1st of December I applied cuc. sang. iv. in pect.: the urine increased," &c.

The author states that this case ended successfully, after using diuretics, quinine and bismuth, and there are also many others related, in which the same mode of practice succeeded.

"A sudden subsidence of the œdema frequently occurs, which we ought attentively to notice, in consequence of which so great an oppression of the chest arises, that the sufferers soon die from suffocation, sometimes they fall as if struck by a thunderbolt. I have twice observed a similar oppression of the chest, from the incautious use of spirits of wine, with which the patients had washed their feet."

BRONCHITIS.

(Translated from the same author.)

I now proceed to mention bronchitis, the symptoms of which have some resemblance to asthma; for there is violent dyspnœa, face bluish red, lips blue, sometimes nearly black, hands blue, particularly the nails, to which symptoms of dropsy are always added, and the appearance of the patient so greatly resembles the blue disease, that I confess myself to have been frequently deceived in the commencement of my practice.

For a woman of plethoric habit, æt. 27, but labouring under universal dropsy, was committed to my care; she complained of extreme suffering in the chest, and continued palpitation of the heart, which you might see; but her cheeks were blue, obscurely tinged with red, lips somewhat black, the sclerotic coat of the eye darkish red; hands, especially the nails, were remarkably blue. She said that she had been subject to palpitation of the heart from her earliest youth; moreover, her parents had told her that she had been troubled with this complaint in her first year; the blue colour had existed about a year, when suddenly dropsy appeared. I found the pulse intermittent at every expiration; in this case, which has occurred to many physicians, I greatly doubted whe-

ther there was congenital affection of the heart, or the organs of respiration, nor did I know how to act; deceived by the blue colour, I did not dare to bleed, fearing lest the contaminated and venous blood might be poured forth with subsequent collapse, wherefore I endeavoured to subdue the dropsy by digitalis, crem. tart. solub., and other similar diuretics, and after a few days she died; I attentively opened the dead body, believing that there was some disease of the heart; but I was exceedingly surprised to find the heart altogether natural, except perhaps a slight enlargement of the right ventricle; neither was the foramen ovale open, nor did the ductus Botalli, nor the insertion of the vessels, present any thing particular; but all the vessels, particularly the veins, were turgid with dark venous blood; the lungs did not collapse, and rather exhibited a red colour, as if turgid with sanguineous congestion; therefore, vainly seeking for the cause of this disease, I dissected the trachea, when I found the internal mucous membrane a line in thickness, and intensely red; this inflammation was dispersed through the whole of the bronchi. I now perceived the evident nature of the disease, and the error which I had committed was so fixed in my recollection, that, afterwards, I recognised the fallacious malady at first sight.

Therefore the thick mucous membrane impeded the air in this complaint, which was less able to mix itself with the blood during respiration, hence there was no oxidation, for which cause all the

blood obtained a venous colour; the circulation was carried on with difficulty through the lungs, consequently they swelled with blood; hence, great anxiety, dyspnœa, and palpitation of the heart. Afterwards I sometimes found the heart, especially the left ventricle, enormous, and the valves of the pulmonary artery red, which redness could not be obliterated by washing; there is always a greater or less quantity of serum effused into the thorax; it is clear that the continual congestion, from the difficulty of circulation through the lungs, affects the head, which I have sometimes observed so great, as to induce delirium, and even mania. In one case, in order to relieve mania of this nature, accompanied with bronchitis, I was compelled to apply leeches again and again, and cold lotions to the head before effecting a cure. The strongly injected appearance of the sclerotic coat of the eye has always afforded a characteristic symptom of the disease, so that from this symptom alone you might distinguish the disease; to which we may add, the darkish lips, blue cheeks, red face, blue hands, accompanied with dropsy, more or less universal.

I have seen no disease in which more benefit has been derived from the application of hirud. iii. or iv. than in the one described, so that after the employment of antiphlogistic diuretics, and the frequent application of leeches, the disease was frequently restrained and cured, but we must not apply many leeches at the same time; for in con-

sequence of the venous nature of the blood and the congestion towards the skin, the flow of blood continues so long after their application, that I have seen the bleeding continue two days; moreover, on one occasion, it recommenced on the second day, after the oozing of the blood had been stopped twenty-four hours. I never employ venesection without great congestion and pulmonary distress; for I have observed that it affords by far less relief, although the effusion of blood may be greater.

The congestion of the blood towards the head, was always diminished after the application of leeches, the sclerotic coat recovered its natural whiteness, or at least was tinged with less redness, the respiration became freer, and the blue colour was changed into red; and one circumstance surprised me, namely, the great restraint upon the inflammation in consequence of the loss of so small a quantity of blood. A frequent application of leeches is sometimes necessary, for it is an obstinate and chronic disease.

[1] Dropsy, as a sequel of this disease, is easily

[1] Dr. Hastings, in his work, "Inflammation of the Mucous Membrane of the Lungs," chap. v. seems inclined to attribute the dropsical effusion of the feet and legs directly to inflammation of the mucous membrane.—Vide also Gregory's Pract. Phys. p. 229, where it is stated that general pathology would rather induce us to suppose, that some mechanical impediment exists in such a case to the free passage of blood through the lungs, whereby the right ventricle of the heart is gorged or distended, and the whole venous system disturbed in its function.

explained; for it is known, that serous membranes, the pleura, peritoneum, &c. exude serum, by which the parts are kept lubricated; but if from any cause congestion of the minute vessels, and orgasm or slight inflammation occurs in those membranes, their secretion is augmented; that is, dropsy arises; but if, as I explained in the Introduction, the inflammation arrives at such a pitch as to change the texture of the membrane itself, the secretion is also changed, that is, coagulable lymph, or pus is formed.

If great congestion was present, digitalis did not prove advantageous; nay, more, it increased the anxiety and dyspnœa; perhaps, because it increased the congestion towards the head, and impeded the circulation, already rendered more difficult both by retarding and debilitating the pulsations of the heart, consequently the heart is rendered incapable and unequal to overcome the impediments of the circulation; but in the decline of the disease, when the inflammation had subsided, it often proved an excellent remedy. But, as far as I have observed, nit. acet. potassæ, crem. tart. sol., oxymel colchic.[1], which I preferred to oxy. squil., and concerning the power and efficacy of which remedy in curing dropsy, I have been taught by manifold experience; to these I sometimes added mucilages and antispasmodics, as ext. hyos. or even pulv. Doveri, and other similar remedies.

I have now a female under my care, in whom

[1] The English Pharmacopœia does not give this preference.

dyspnœa, with palpitation of the heart, and congestion towards the head, were so violent, that there appeared to be imminent danger of suffocation; her speech was impaired from pulmonary anxiety, lips somewhat black, sclerotic coat of the eye turgid with darkish vessels, the feet were œdematous, hands blue; she had already been afflicted with an asthmatic attack for years; the urine was scanty and red; after the application of leeches, she experienced great relief, and the urine on the following night was far more abundant, which I attempted to promote by cooling diuretic remedies; the same symptoms returned again, but less urgently; and after the application of hirud. iii. or iv., by which a great quantity of blood was obtained, and the use of the diuretics being continued, she was so restored, that all the blue colour vanished, the respiration was free, no cough, no œdema, she recovered her strength, and was able to leave the Hospital.

There is also another case in exemplification of the success of similar treatment in bronchitis, which the limits of this Treatise will not allow me to produce.

THE END.

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